

In recognition of his public services the Companionship of the Bath was conferred upon him in 1873, and in 1881 he was advanced to Knight-Commandership of the same order.

Sir Frederick Evans's last public service after his retirement from the Admiralty in 1884 was as the British Delegate at the Congress of Washington for the establishment of a prime meridian and questions kindred to it.

He died on December 20, 1885, in his 71st year.

He was elected a Fellow of this Society on December 12, 1856.

MAJOR-GENERAL JOHN CAULFIELD HANNYNGTON, Fellow of the Institute of Actuaries, was born in Dungannon, Co. Tyrone, on March 7, 1807. He entered the army as a cadet in 1825, and served in the 24th Regiment of Native Infantry until, on the suppression of the Colekan insurrection, he received a political appointment, and was placed in charge of the Mānbhoom Division on the southern frontier, where he remained until, in 1842, he was selected to fill the highest judicial position on the frontier, that of Judicial Commissioner.

On his promotion to the rank of Lieut.-Colonel, in 1856, he returned to regimental duty, in accordance with the regulations of the Service, and took command of the 63rd B.N.I. He was with his regiment at Berhampore at the time of the Mutiny in 1857, and was for some time in command of the station. The 63rd did not mutiny, but were disarmed.

The reputation which Colonel Hannyngham had acquired led very shortly to his transfer to the Military Finance Department, and finally to his appointment as Military Auditor-General, in which office he remained until the close of his active military career in 1861, when he retired on his pension.

Throughout nearly the whole of his service General Hannyngham sedulously watched over the affairs of the Bengal Military and Orphan Funds, and placed his knowledge, his skill, and his labour gratuitously at the disposal of the directors of those splendid institutions. He was, in fact, their most able consulting actuary. True it is that to his sympathetic nature it was always a labour of love to work for the widow and orphan; but only those who know the responsibilities, anxieties, and arduous nature of the actuarial duties connected with institutions of the magnitude of the Bengal Military and Orphan Funds can duly appreciate the self-sacrificing devotion of one who voluntarily and gratuitously undertook such onerous duties in addition to his daily official work in the administration of justice in a large province.

After his retirement the services of General Hannyngham, as a skilful actuary, were on several occasions called into requisition by the Secretary of State for India with regard to the affairs of the Staff Corps and on other matters. To him are due also the whole of the calculations and arrangements under which the Government took over the Annuity and Civil Funds of the

Civil Services of Bengal, Madras, and Bombay, involving questions amounting to millions of pounds sterling between the Government and the members of those distinguished Services, their widows and children. The last of these laborious undertakings, for which, from his knowledge of India and the circumstances of the cases, he was so pre-eminently qualified, had been but very recently completed when he died.

In 1872 he was appointed Assistant Secretary in the Finance Department of the India Office, and remained in that appointment to the end of his long life of zealous, indefatigable, eminently useful, and well-nigh unique service. He may most truly be said to have died in harness.

General Hannyngton's scholarly and scientific attainments were great and varied. To unusual mathematical acquirements as applied to astronomy and navigation were united actuarial abilities of a very high order. He was a good scholar in Oriental languages, more especially in Bengalee. By practice during a long series of years in the performance of his judicial duties he had made himself an expert shorthand writer. The value of Thoman's arithmometer was very early recognised by him, and he was the first to avail himself of it in the calculation of life contingencies. To his intelligence and mathematical power is due the invention of a very ingenious and useful slide-rule. His best known and largest work is a table of Haversines, natural and logarithmic, used in computing distances for the "Nautical Almanac." It was printed by the Admiralty, and is a fitting and enduring monument of his patient and persevering industry.

General Hannyngton was a truly pious, simple-minded, Christian gentleman, trusted, respected, and beloved by all who knew him.

He was elected a Fellow of this Society, 1875, March 12.

JOHN HARTNUP was born at Hurst Green, in Sussex, on January 7, 1806. His first astronomical work of importance was performed at Mr., afterwards Lord, Wrottesley's private observatory at Blackheath, where he was employed as assistant. The part taken by Mr. Hartnup in the observations of the Wrottesley Catalogue of Stars is referred to in the Society's *Monthly Notices*, No. 1, Vol. iv. He was subsequently engaged as a supernumerary at the Royal Observatory, Greenwich, and afterwards became Assistant Secretary to the Royal Astronomical Society. The results of a series of observations made by Mr. Hartnup with a sextant and pocket chronometer for determining the latitude and longitude of the Society's apartments at Somerset House are given in the *Monthly Notices*, No. 2, Vol. vi. In November, 1843, Mr. Hartnup was appointed Director of the Liverpool Observatory. A few words as to the objects of this establishment may perhaps not be out of place.

Between the years 1834 and 1838 urgent requests were